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GILVOSSIUS, A NEW GENUS OF CALLIANASSID SHRIMP FROM THE EASTERN UNITED STATES (CRUSTACEA: DECAPODA: THALASSINIDEA)

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ABSTRACT

Gilvossius new genus, is recognized with the East American *Callianassa setimanus* (DeKay, 1844) as its type and only included species.

Studies on American callianassids have suggested that all American species now placed in *Callianassa* Leach (1814: 400) will have to be referred to new genera and that the genus *Callianassa* apparently is not represented in the American fauna (Manning and Felder, in press). Among the genera that we plan to recognize is one represented by a species collected by one of us (R.B.M.) in Miami on Rickenbacker Causeway near the Rosenstiel School of Marine and Atmospheric Science, University of Miami. This new genus is diagnosed below and dedicated to the late Gilbert L. Voss. Primary diagnostic features are shown in Figure 1 as well as in a figure published earlier by Williams (1984: fig. 125); the remainder of the appendages will be figured in our planned review of the American genera.

Gilvossius new genus

Type Species.—*Gonodactylus setimanus* DeKay, 1844.

Diagnosis.—Carapace with dorsal oval, lacking cardiac prominence, rostral carina, and rostral spine; antennular peduncle stouter and longer than antennal peduncle, latter with reduced antennal scale; segment 3 of antennular peduncle about 5 times as long as segment 2; third maxilliped with ischium-merus operculiform, without exopod, merus not projecting beyond articulation with carpus, propodus and dactylus narrow, digitiform; chelipeds unequal, major cheliped with meral hook; sixth abdominal somite subequal to second in length; pleopods 3–5 foliaceous, different from pleopods 1–2 in female; male lacking pleopods 1–2; pleopods 3–5 in both sexes with appendices internae embedded in edge of endopod; uropodal exopod with dorsal plate, lacking lateral incision; uropodal endopod oval, not much longer than telson.

Included Species.—One, *Gilvossius setimanus* (DeKay) (1844: 34), from the eastern coast of the United States. Until recently (Manning, 1987), this species was known as *Callianassa atlantica* Rathbun (1926: 107). Material from the northwestern Gulf of Mexico identified with *C. atlantica* by Rabalais et al. (1981: 101, fig. 2a–h) may represent a second, undescribed, species of *Gilvossius*.

Name.—We had decided to name this genus in honor of the late Gilbert L. Voss, even before learning that a volume of the *Bulletin of Marine Science* was to be dedicated to his memory. Gil has earned a special place in the memory of one of us (R.B.M.), introducing him to basic marine biology in 1955 and to invertebrate systematics in 1957, and leading him through the graduate program at Miami until graduation in 1963, as his second successful doctoral student. Gil impressed upon his students the importance of publishing research results and writing grant proposals and reports, even as students, and the importance of field work to any research program, including how to collect materials to study with minimal ad-

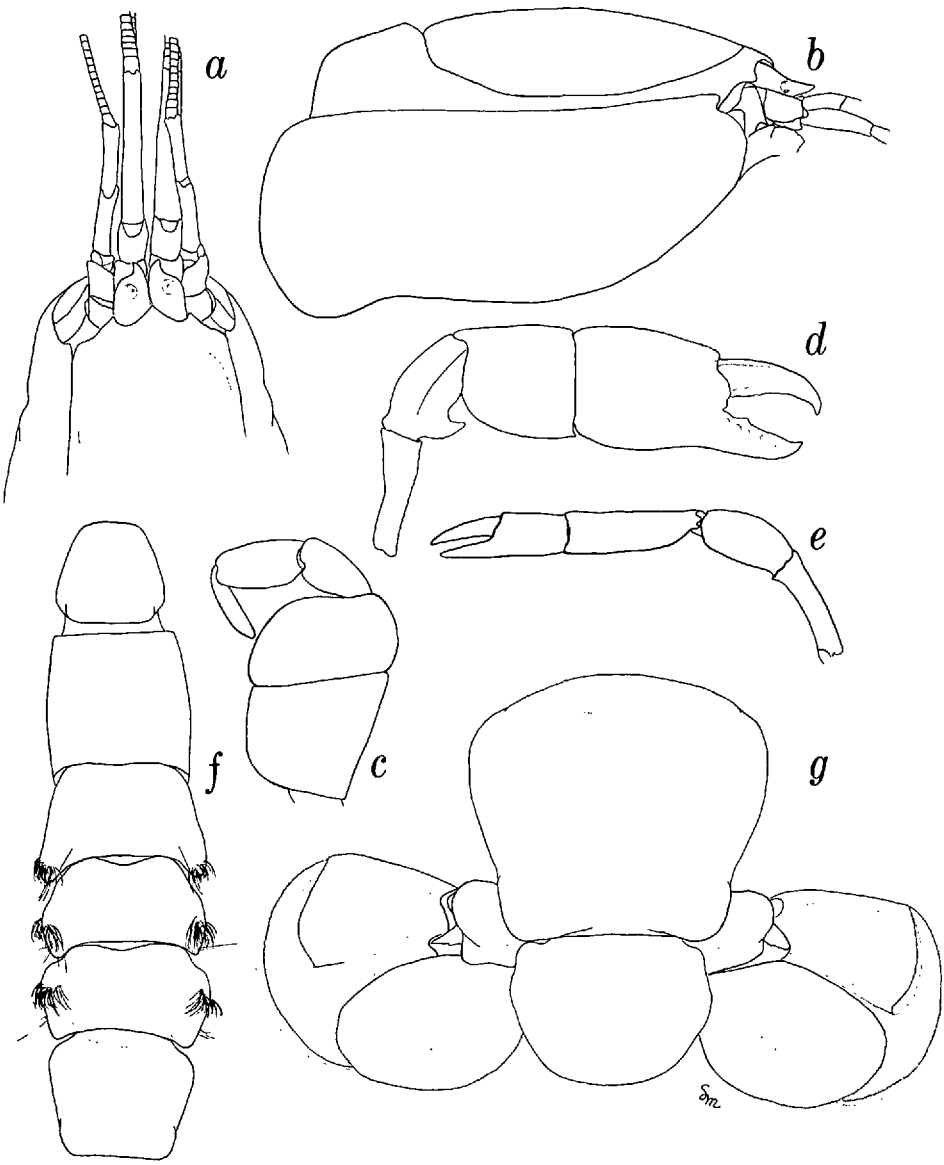

Figure 1. *Gilvossius setimanus*, female, carapace length 9.2 mm, Massachusetts (USNM 12902): *a*, front; *b*, carapace, side view; *c*, third maxilliped; *d*, major cheliped; *e*, minor cheliped; *f*, abdomen; *g*, sixth abdominal somite, telson, and uropods.

verse impact on the environment. A generation of marine invertebrate systematists owes him a great deal.

Remarks.—*Gilvossius* resembles *Callichirus* Stimpson (1866: 47) and *Lepidophthalmus* Holmes (1904: 310) and differs from all other presently recognized genera of callianassids in the western Atlantic (listed in Manning, 1987: 397–399) in having a long, stout antennular peduncle with the third segment four to five times as long as the second. It differs from *Callichirus* in many features, including the

oval rather than strap-shaped uropodal endopod, the longer telson lacking a median incision, and the operculiform third maxilliped; *Gilvossius* further differs from *Callichirus* in lacking the pattern characteristic of that genus on the third to fifth abdominal somites (formed by subcutaneous glands and visible even in preserved specimens; see Manning and Felder, 1986, figs. 1*f*, 2*e*, 3*e*) and in lacking pleopods on the first and second abdominal somites in males.

Gilvossius differs from *Lepidophthalmus*, a genus until recently (Manning and Felder, in press) considered a junior synonym of *Callianassa*, in lacking a rostral spine, and in having an operculiform rather than a subpediform third maxilliped with the propodus much wider than the digitiform dactylus. In *Lepidophthalmus* pleopods are present on the first and second abdominal somites of the male. *Lepidophthalmus* includes three American species previously assigned to *Callianassa*: *L. jamaicense* (Schmitt) (1935: 4, 9) and *L. louisianensis* (Schmitt) (1935: 12) from the western Atlantic, and *L. bocourti* (A. Milne Edwards) (1870: 95) from the eastern Pacific.

Several features distinguish *Gilvossius* from *Callianassa* sensu stricto; the more important of these include the long, stout antennular peduncle and the operculiform third maxilliped. In *Callianassa* the antennular peduncle is shorter than the antennal peduncle and the third maxilliped is pediform.

Sakai (1988: 61) named a callianassid genus, *Neocallichirus*, that will encompass five East American species previously assigned to *Callianassa*: *N. grandimana* (Gibbes) (1850: 194), *N. quara* (Rodrigues) (1971: 210), *N. guassutinga* (Rodrigues) (1971: 204), *N. mirim* (Rodrigues) (1971: 214), *N. rathbunae* (Schmitt) (1935: 4, 15), and *N. trilobata* (Biffar) (1970: 36). *Gilvossius* differs from *Neocallichirus* in having a long, stout antennular peduncle, an operculiform third maxilliped, a digitiform propodus on the third maxilliped, a ventral hook on the merus of the major cheliped, and in lacking pleopods on the first and second abdominal somites of the male.

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